

1 CLAIMS

2 1. A storage device comprising a carousel having a plurality of locations disposed  
3 about an axis to receive articles, a delivery station axially spaced from said locations and  
4 a robotic device located within said carousel to transfer articles between one of said  
5 locations and said delivery station, said robotic device being moveable radially relative to  
6 said axis toward and away said locations and axially to between said delivery station and  
7 said location to facilitate transfer of articles within said carousel.

8 2. A storage device according to claim 1 wherein said robotic device is rotatable  
9 about said axis to permit alignment with different ones of said locations.

10 3. A storage device according to claim 2 wherein said delivery station is located at  
11 one end of said carousel.

12 4. A storage device according to claim 3 wherein said delivery station is located at a  
13 lower end of said carousel.

14 5. A storage device according to claim 4 wherein said carousel is located on a plinth  
15 and said delivery station is located within said plinth.

16 6. A storage device according to claim 5 wherein said robotic device is operable in  
17 said delivery station to move an article radially between said delivery station and a  
18 workstation disposed about said plinth.

19 7. A storage device according to claim 5 wherein said plinth is inset from said  
20 carousel.

21 8. A storage device according to claim 1 wherein said robotic device includes an  
22 arm supported on a body and extendible toward and away from said locations.

23 9. A storage device according to claim 8 wherein said body is displaceable within  
24 said carousel along said axis.

25 10. A storage device according to claim 9 wherein said body is rotatable within said  
26 carousel.

27 11. A method of moving articles between a delivery station and storage locations in a  
28 carousel, said method comprising the steps of moving said article radially between said  
29 location and an interior of said carousel and axially within said carousel to said delivery  
30 station.

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- 1    **12.**    A method according to claim 11 including the step of rotating said article within
- 2    said carousel to orient said article relative to said carousel.
- 3    **13.**    A method according to claim 12 including the step of moving said article radially
- 4    at said delivery station toward a workstation.